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BULL-ETIN

SAN ANTONIO RADIO CLUB

President - Floyd Roland, W5JKU
Vice President-Gene Tark, W5EJT
Secretary - Bill Ross, K5LLK
Treasurer - Frank Box, WA5VFM
Sargent-at-Arms - Dan DeLay, W5DUI

Meets first and third Fridays at 7:30 p.m. at the Red Cross building, 90 Brees St. All who have an INTEREST in amateur radio are cordially invited to attend.

Bulletin Editor, Dean Davis, W5BGE
Typist, Maybelle Davis, XYL

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EXTRA

WHAT—

IT IS WITH GREAT PLEASURE
THE SAN ANTONIO RADIO CLUB
ANNOUNCES THAT
LEWIS G. McCOY, W1ICP
FROM THE STAFF OF ARRL
HAS AGREED TO SPEAK TO THE CLUB.
SUBJECT: ANTENNAS--HF and VHF

WHEN—

THE DATE HAS BEEN SET FOR
MONDAY, AUGUST 30, 7:30 p. m.

WHERE—

THE RED CROSS BUILDING
IS THE SITE FOR THIS MEETING
LOCATION--90 BREES (SEE MAP BELOW)

ALL

WHO ARE INTERESTED IN AMATEUR ANTENNAS ARE INVITED TO COME--BRING YOUR FRIENDS!

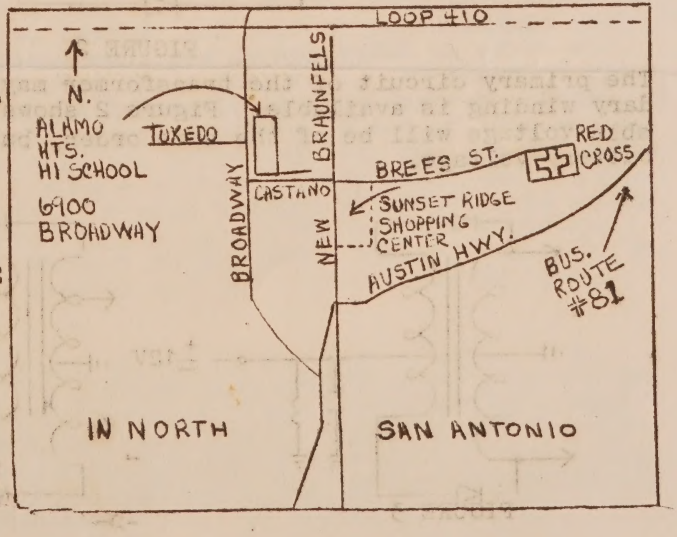
INFO—

ADDITIONAL DETAILS ON PAGE 5

NOTE—

DUE TO THIS SPECIAL EVENT THE REGULAR FRIDAY, SEPT. 3 MEETING IS NOW SCHEDULED ON MON. AUG. 30.
REMEMBER: NO MEETING ON SEPTEMBER 3

C U THERE
73, Floyd W5JKU
SARC President



CAR BATTERY POLARITY REVERSING DEVICE

by W5PEK

There have been a couple of problems tossed around in on-the-air discussions recently concerning the use of hand-held transceivers in automobiles, using the car battery for power. In some cases, the discussion extended to the use of the vehicle charging system to charge the battery in the hand unit.

Although not true in all cases, one of the major problems appears to be cross polarization of the batteries and chassis of the two units. In most of today's vehicles, it is customary to run chassis negative, but many of the hand units operate with the chassis positive, and this leads to problems when the unit is connected to the car battery and to the car antenna simultaneously.

Although a separate problem, some individuals would like to charge the battery in the hand unit from the car battery system, but the voltage isn't high enough to effect the charge. Even though the polarity in some units does not require inversion, the available voltage from the vehicle still needs a boost. This device will provide the extra voltage.

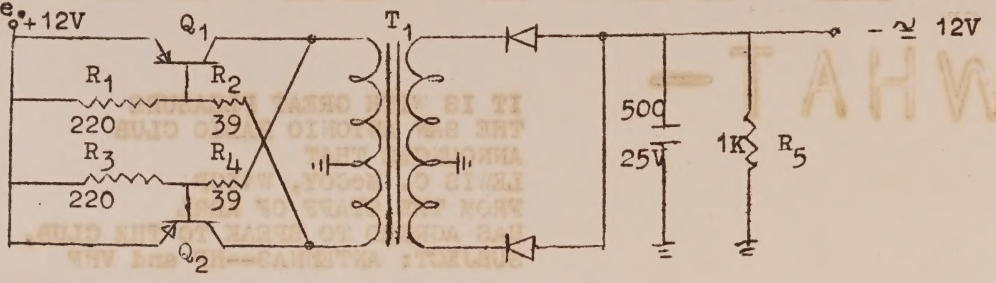


FIGURE 1

Figure 1 shows the ideal inverter circuit. The primary of the transformer is connected as a free running multivibrator, and the secondary is connected as the source of the inverted voltage. This, however, requires a special transformer which may not be available, although it could be wound on an old transformer core without much difficulty. In the diagram, the transistors, resistors, and the transformer winding form the basic multivibrator circuit. The transformer winding should be an original 12 or 24 volt center tapped winding to provide an inductive load sufficient to control the current through the transistor switching circuit.

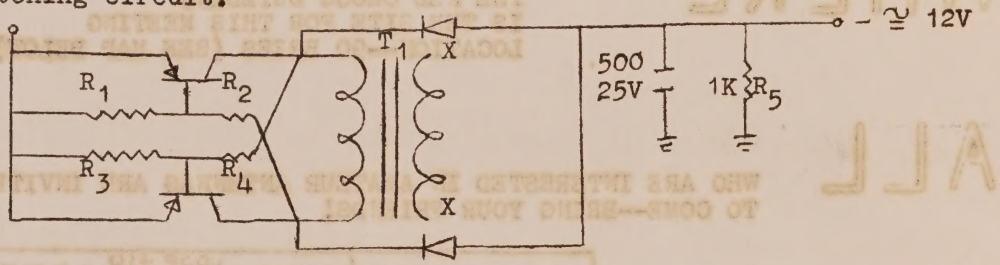


FIGURE 2

The primary circuit of the transformer may be used alone, if no secondary winding is available. Figure 2 shows this circuit. The available voltage will be of the same order, but slightly less than the car battery voltage.

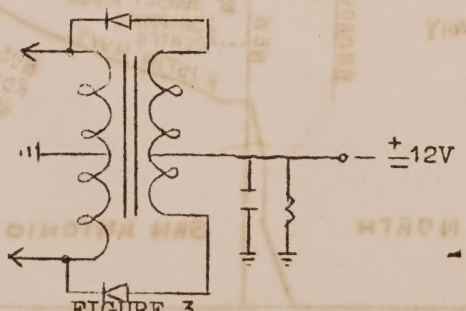


FIGURE 3

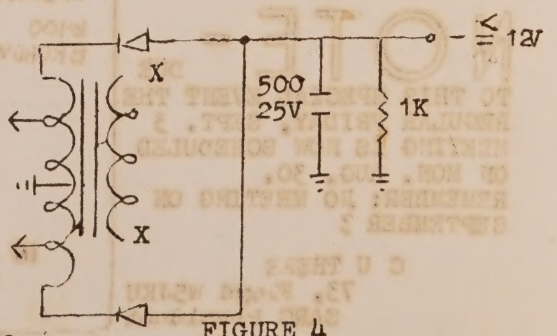


FIGURE 4

When there is a need to increase the available voltage, Figure 3 or Figure 4 may be used. Figure 3 uses another winding on the same transformer core properly polarized to boost the voltage, while Figure 4 uses the auto-transformer principle. These two circuits permit obtaining voltages slightly higher than the car system in order to charge hand unit batteries, or to operate units requiring higher operating voltages.

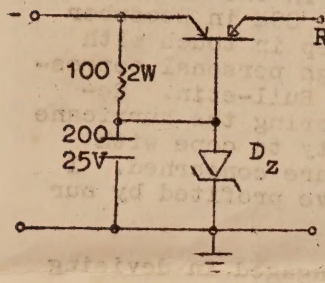


FIGURE 5

If it is desired to have a regulated voltage source, the circuit shown in Figure 5 may be used to closely regulate the output voltage, and at the same time provide good filtering action. A previous article on the regulation circuit described hints for making adjustments in the output voltage.

The transformer used in Figure 3 is available from Burstein-Applebee, and is identified as Catalog Number 13A902 at $3.99.

All components should be capable of handling the necessary currents required to operate the transceivers involved. An old transformer core wound with #18 or #20 wire could be used just as well as a new transformer. The number of turns would be on the same order as a filament winding of the desired voltage. The important thing is to make sure there are enough turns to provide sufficient load inductance for proper operation of the multivibrator. Additional windings may be added as desired.

Adjustments may be required in the feedback network R_1, R_2, R_3 & R_4 to obtain good operation of the multivibrator under load.

73 D. B. W5PEK

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OUR TRIP TO IRELAND

By K5TSZ

Jim and I went just to live (as much as it was possible for us to do) in Ireland for six weeks. We had learned of the guest houses and were referred to Trelawne in Limerick by the Irish Tourist Board. From then on until we left we were surrounded by "tender love and care" in each of the guest homes in which we stayed--Louchnane's in Lillarne, St. Terese in Salthill (Galway,) Glencar in Dun Loughaire just outside of Dublin and the Castle Hotel (an old pub) on Tonbridge, Kent, England.

At Trelawne the weather is something else again. It is cold in April and May but when the sun comes out it is a whole new day--people just seem to fall out of their houses to be in the sun. We spent a week in Killarne doing The Ring and Dingle Peninsular--beautiful scenery. On the way to Galway we stopped by Paddy Burke's pub to drink guiness and eat smoked salmon and oysters on the half shell. Salthill is a suburb of Galway and is on the Galway Bay. I suppose all of us who are old enough to remember the very popular song "On Galway Bay", which came out around 1950, would have to be thrilled at standing, looking out on Galway Bay. We were fortunate to see "Riders to the Sea", The Tinker's Wedding", and "The Playboy of the Western World" at the Abbey Theatre in Sligo.

London made me sad--to me it looked old and worn. They have built so many high risers that the old, famous, and much loved buildings are dwarfed. But the Victoria Embankment was as beautiful as ever--the tulips were magnificent--some over three feet tall. At least, I got to go to Fortunum and Mason again before it is gone forever--there, the floor walkers still wear tails and the food is out of this world. Number 10 Downing Street had only one policeman--can you see the White House with only one guard? I took a picture of Jim right next to the door and the policeman continued to give tourist information to another tourist. The most "tourist" thing we did was to make a special trip to Dover to ride the Hovercraft to Boulogne, France, and back. It took 25 minutes to cross the channel and the ride was smooth as it could be.

I met only one ham in Ireland and he was an American. Most of the time I do not have good copy of Ireland from LaVernia, so have talked with few hams in Ireland. At Salthill, a block from where we stayed there was a house with a ham beam. The lead-in line ran directly to the little house with the red door. Although I passed it at least four times a day for a week I never saw any life. Has anyone ever talked to a ham in Salthill? With a red door? 73 Katharine K5TSZ

SCM REPORT

by K5HZR

There is a detailed resume of the duties of the SCM on page 21 of the latest issue of the pamphlet "Operating an Amateur Radio Station". In this same pamphlet, there is also a job description of each appointment in the ARRL Field Organization. Since becoming SCM in December 1970 I have endeavored to keep in touch with all affiliated clubs and each ARRL appointee through personal correspondence, on-the-air contact and items in the SARC Bull-etin. Response has been encouraging but meagre. We are nearing the hurricane season and I'm a little dubious about our capability to cope with such disasters as far as emergency communications are concerned. I hope history does not repeat itself and that we have profited by our past mistakes.

Jim Freeman K5HXR, our SEC, and others have been engaged in devising an emergency operations plan for the Southern Texas Section since early spring. There still remains much information to be compiled. If you are an EC, have you furnished the SEC with a copy of your local emergency communications plan? Does he know who to contact and how to contact him if you can't be reached in an emergency? Do you have a portable VHF repeater available that could be used in other than your local area? Does the SEC know about it? Does your plan include teams (complete with equipment, power, food, water, etc.) that could be assigned to assist in adjacent areas to your area of jurisdiction?

In this connection, we must accept the premise that in a major disaster the amateurs in that area will be busy taking care of their own needs and we should be prepared to provide outside help for a prolonged period. Organization and planning make the difference between a successful operation and a fiasco. Teams sent into an area must be self sustaining and prepared to stay so that they themselves do not become part of the disaster. If you are an officer or member of an ARRL affiliated club, does your club actively support your EC in AREC membership drives and the like? Do you have an EC in your county? If not, why not? How are you, as an individual fixed for emergencies? To quote from a letter I received as a result of hurricane Celia, "A hurricane expedition is not a camp-out; it's a tough, dirty, smelly operation which is fun because you're showing the world what ham radio is really for". 73, Lee K5HZR, SCM, South Texas.

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FOR SALE

('FOR SALE' ITEMS USED AS S P A C E PERMITS)

Globe Champion 300C xmtr with spare tubes--$75, CE 20A with amplifier & power supply, call Lee K5HZR, 333-0060

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Globe Scout Deluxe xmtr--$60, good condition, manual included. Central Electronics 100V xmtr--$250, good condition, manual included. Astatic mike with stand G-10-6--$30. Call Robert WA5JDU, 733-9474.

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NC303 receiver--$185, Drake2-NT xmtr--$100, grid dip meter (Heath)--$25, Hallicrafter VFO HA/5--$55, BC221 freq meter 70 AH. Heath Kit signal tracer--$15, wavemeter (absorption)--$12, McElroy bug--$5, Astatic D104 mike with stand--$10, Calrad VOM--$8, Heath Kit RF signal generator SG7, six ft. rack on casters--$40. Call Mrs. Abbot (widow of W5DTJ) 534-9031 after 5 p.m.

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SPLATTER --- Please correct W5ETG's schematic in July's Bull-etin by making 5 K resister next to meter a 5 K pot so sensitivity can be controlled!.....Hubert Jeannet K5MDS now at home, 415 Anton Dr. 333-9053, recovering from a stroke--would like company.....Trappe's WA5IBD have returned from vacation in Florida.....QCWA held quarterly meeting July 29 at Howell's W5FKR.....Sat. Dec. 11 has been the date set for SARC's Annual Christmas Party--mark your calendar NOW!!..... FM magazine "rpt.." now a reality (Michael Van Den Branden - editor)... ...DB W5PEK sagely commented that forbidden fruit is responsible for many a bad jam.....Delta SSB net will hold a picnic-fish fry Sept. 18 & 19 at Tyler State Park.....Nominating committee for new officers of SARC--WA5RNV, W5QMH & W5BGE--report to be made Aug. 30, with election on Fri. Sept. 17.....The Janks (W5EJT-K5OPT) slides on their recent trip to Europe shown at Aug. 6 meeting enjoyed by all.....A MUST-K5YFW report on weather & driving habits mornings on 2 FM. 73 Dean W5BGE

-4-

LEW McCOY

The San Antonio Radio Club, with great pride and pleasure announces that Lew McCoy, W1ICP, direct from ARRL Headquarters will talk to the Club on Comparison of Various Popular Amateur Antennas on HF & VHF. Date - Monday, Aug. 30, 7:30 p.m., place - Red Cross Bldg., 90 Brees. Brees can be found off the 6900 block of Broadway at Alamo Heights High School--turn east on Castano, cross New Braunfels Ave., it then becomes Brees--up the hill 2 blocks to 90 Brees.

Lew McCoy, W1ICP, came to ARRL Hq. from Missouri, where he was WØICP in 1949 as Assistant Communications Manager for phone activities.

W1ICP IS W1ICP

In 1950, transferred to the Technical Department, primarily to head up work on TVI, which was a real threat to amateur radio at that time Toured the USA with a complete show on causes and cures for TVI, designed to educate the public and TV repairmen. Following this, he took up duties as Novice Editor of QST, generating and editing articles, with emphasis on antennas and transmission lines. One article that has had great influence on the body was the Monimatch, a simple device for checking SWR and antenna match. In addition to Novice duties, Lew is also editor of antenna and transmission line portions of the ARRL Handbook.

COMING

Another article which created much interest was his July '70 QST article on The Ultimate Transmatch. This covered 160 through 10 meters and worked during coax-to-coax or balanced-line conditions. It would match the proverbial bedsprings, or other nonresonant or resonant antenna, and without plug-in coils or band switching. Several in the SA area built it and were pleased with the results.

Lew's present prime interest is 2 meter FM and repeater work, however he is active on all bands, with some rather exotic antennas.

AUG. 30 TO AUG. 30

He is a member of Murphy's Marauders, DXCC phone and CW with over 300 countries confirmed.

His headquarters duties also include membership on the Awards committee.

On Tuesday evening Aug. 31, Lew will also speak in El Paso at a meeting of the combined radio clubs there.

San Antonio!

ARRL NEWS ARRL NEWS FROM THE DIRECTOR ARRL NEWS ARRL NEWS

Before I forget, let me remind everyone to mark your calendar to attend the special meeting of the San Antonio Radio Club on MONDAY, 30 AUGUST. LEW McCOY, from the technical staff of QST will be our special guest. By taking advantage of the opportunity to meet the staff members in person our membership in the League becomes more meaningful.

We are indeed happy to announce the election of Dr. LARRY HIGGINS, W5QMU, as President of the Texas VHF-FM Society.

Amateur Radio is changing. Don't let the new techniques pass you by. Here is some highly recommended reading:

LET'S TALK TRANSISTORS. QST Nov '69 thru July '70. (A complete compilation in pamphlet form is available from the League for one buck.).
MORE THOUGHTS ON SOLID STATE RECEIVER DESIGN. DeMaw, Jan '71 QST.
RECEIVING FM - BASIC PRINCIPLES AND NEW CIRCUITS. Blakeslee, QST Jan-Apr '71.
AN FM PIPSQUEEK FOR 2 METERS. DeMaw, QST Mar. '71.
SOLID STATE NOISE BLANKER. Van Zant, QST, July '71.
BURST TWO TONE TESTING OF LINEARS. Buur. QST Aug. '71.

The recently formed NORTH TEXAS DX ASSOCIATION publishes a real fb DX bulletin. Since we have no similar organization here in south Texas our DX hounds may be interested in joining them. RAY STONE, W5RBO is prexy.

The League now has two directories available. One, of great interest to traffic handlers, is the Net Directory. The other is the newly published Repeater Directory. To get them, send a self addressed, 8¢ stamped, No. 10 envelope to the League, one for each. Be sure to specify the directory desired.

Names make news. For years I've been hoping some group would be organized for the purpose of going through the Call Book and preparing a complete and accurate listing of all licensed amateurs in the San Antonio area. Considering the small size type, and the fact that the listings are scattered over some 60 pages, with about 18 pertinent names to the page, it is indeed a formidable task. Some time ago the Caprock club of Lubbock prepared such a directory for their area, in which they found over 2,000 amateurs were listed as living within a 150 mile radius of Lubbock. Any volunteers?

Did I say amateur radio was changing? This morning's mail brings the AMSAT bulletin, from which I quote:

"On Nov 1, 1969, AMSAT submitted a proposal to NASA for two experiments for launch on the ATS-G. This satellite will be launched into * * * stationary orbit in 1975. * * * The experiment has been named SYNCART, * * * which employs a * * * linear repeater. The package will be designed to operate within the presently allocated two meter and seventy centimeter amateur bands. Prospects are excellent at this time that we will be authorized to launch an experiment as described * * *."

73,

ROY J. ALBRIGHT, W5EYB, DIRECTOR, WEST GULF DIVISION, ARRL

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